Docket 81794BLMB
Customer No. 01333

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

In re Application of

Debasis Majumdar, et al

CONDUCTIVE AND ROUGHENING LAYER

Serial No. 10/797,982

Filed March 11, 2004

Group Art Unit: 1752

Examiner: Amanda C. Walke

I hereby certify that this correspondence is being deposited today with the United States Postal Service as first class mail in an envelope addressed to Commissioner For Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

Christine Tolhurst
Christine Tolhurst

May 3, 2006
Date

Mail Stop APPEAL BRIEF-PATENTS
Commissioner for Patents
P.O. Box 1450
Alexandria, VA. 22313-1450

Sir:

APPEAL BRIEF TRANSMITTAL

Enclosed herewith is Appellants' Appeal Brief for the above-identified application.

The Commissioner is hereby authorized to charge the Appeal Brief filing fee to Eastman Kodak Company Deposit Account 05-0225. A duplicate copy of this letter is enclosed.

Respectfully submitted,

Lynne M. Blank
Attorney for Appellants
Registration No. 42,334

Lynne M. Blank/ct
Telephone: 585-477-7418
Facsimile: 585-477-1148
Enclosures
If the Examiner is unable to reach the Applicant(s) Attorney at the telephone number provided, the Examiner is requested to communicate with Eastman Kodak Company Patent Operations at (585) 477-4656.

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APPEAL BRIEF PURSUANT TO 37 C.F.R. 41.37 and 35 U.S.C. 134

Table Of Contents

APPELLANT'S BRIEF ON APPEAL

Appellants hereby appeal to the Board of Patent Appeals and Interferences from the Examiner's Final Rejection of claims 1-11 and 14-16 which was contained in the Office Action mailed 10/18/2005.

A timely Notice of Appeal was filed 01/18/2006.

Real Party In Interest

As indicated above in the caption of the Brief, the Eastman Kodak Company is the real party in interest.

Related Appeals And Interferences

No appeals or interferences are known which will directly affect or be directly affected by or have bearing on the Board's decision in the pending appeal.

Status Of The Claims

Claims 1-11 and 14-16 are pending in the application.

Claims 12 and 13 have been canceled.

Claims 1-11 and 14-16 are being appealed.

Appendix I provides a clean, double spaced copy of the claims on appeal.

Status Of Amendments

An Amendment After Final was filed December 30, 2005, subsequent to the Final Rejection. An Advisory Action dated January 18, 2006 was then received, indicating that the request for reconsideration did not place the application in condition for allowance.

Summary of Claimed Subject Matter

Independent claim 1 relates to a method of forming a roughened sheet comprising extruding a polymer sheet (pg. 16, lines 19-23; pg. 29, lines 24-28) wherein at least one surface layer comprises polyether polymeric antistat (pg. 8, lines 7-9; pg. 8, line 10 – pg. 11, line 20), extrudable polymer (pg. 8, lines 7-9; pg.

11, line 21- pg. 14, line 22), and compatibilizer (pg. 8, lines 7-9; pg. 14, line 23 – pg. 15, line 12), stretching said polymer sheet by a ratio of at least 3:1 (pg. 16, lines 24-31) in at least one direction such that said at least one surface layer has a roughness of greater 0.3 Ra. (pg. 17, lines 27; pg. 18, line 20; pg. 32, lines 5-6)

Grounds of Rejection to be Reviewed on Appeal

The following issues are presented for review by the Board of Patent Appeals and Interferences:

1. The Examiner has rejected claims 1-11 and 14-16 under 35 U.S.C. 102(e) as being anticipated by Greener et al (6,207,361).

Arguments

1. Rejection of Claims 1-11 and 14-16 Under 35 U.S.C. §102(e):

The Examiner has rejected claims 1-11 and 14-16 under 35 U.S.C. 102(e) as being anticipated by Greener et al (6,207,361), stating:

> *"Greener et al disclose an imaging element comprising a layer of biaxially oriented sheet adhered to the bottom surface of a base wherein said biaxially oriented sheet adhered to the bottom surface has a surface roughness average of between about 0.30 to 2.00 microns. Any suitable biaxially oriented polyolefin sheet may be used for the sheet on the topside of the laminated base of the invention, but PET is preferred. The composite biaxially oriented sheet are preferred and are conveniently manufactured by coextrusion of the core and surface layer, followed by biaxial orientation. The base material comprises a polymeric polyether antistat (see examples in column 7), comprises a small amount of a compatibilizer (column 7, lines 35-37), and is stretched to a ratio of between 1.5 and 4.5 times the original dimensions (column 7, lines 9-25). Given the teachings of the reference, the instant claims are anticipated."*

Greener discloses imaging elements, such as photographic, electrostatographic and thermal imaging elements and, in particular, to imaging

elements comprising a support, an image-forming layer, and an electrically-conductive layer. More specifically, Greener relates to electrically-conductive layers comprising electrically-conductive polymers which can be applied during film extrusion and are integral to the photographic film support and to the use of such electrically-conductive layers in imaging elements for such purposes as providing protection against the generation of static electrical charges.

The present invention relates to a method of forming a roughened sheet comprising extruding a polymer sheet wherein at least one surface layer comprises polyether polymeric antistat, extrudable polymer, and compatibilizer; stretching said polymer sheet by a ratio of at least 3:1 in at least one direction, such that said at least one surface layer has a roughness of greater 0.3 Ra.

A claim is anticipated only if each and every element as set forth in the claim is found either expressly or inherently described in a single prior art reference. The identical invention must be shown in as complete detail as is contained in the claim. Although the Examiner indicates that Greener discloses a bottom surface which has a surface roughness average of between about 0.30 to 2.00 microns, the Applicants have been unable to find any mention of roughness or a bottom surface having a surface roughness average of between about 0.30 to 2.00 microns, nor has the Examiner specifically referred the Applicants to such disclosure. Therefore, Greener fails to expressly mention the limitation of the present claims for forming a roughened sheet or forming at least one surface layer has a roughness of greater 0.3 Ra and fails to anticipate the present claims.

In addition, as discussed above, Greener fails to inherently disclose the limitation of the present claims. US2002/0114977 A1 and US 6,783,889 B2 by Kubota et al teach blending polyester and polyether imide [0030 or col. 5, lines 6-13] preferably with a compatibilizer [0031 or col. 5, lines 14-20], casting a film and stretching the cast film [0122 or col. 26 lines 1 - 37] to obtain surface roughness Ra values of 6.5 to 15 nm (0.0065 to 0.015 micron) (Examples 8-11 and Comparative examples 5-7; Table 2, as well as col. 18, line 58 – col. 20, line 3) as opposed to Ra values greater than 0.3 micron as presently claimed. These references, available to one of ordinary skill in the art, provide evidence that, although the materials are the same or similar to the present claims, the roughness

falls outside the present claims. Therefore, the roughness is not an inherent property of the materials.

The Examiner also indicates that:

"Applicant has argued that the Greener et al reference fails to teach all of the instant claim limitations. While the reference does not specifically discuss the limitation for the surface roughness, the material of the reference (see examples) comprises the same polymers/ materials that are employed in the examples of the instant specification, thus the examiner takes the position that the material of the Greener et al reference does have a bottom surface having a surface roughness meeting the instant claim limitations."

It should be noted, however, a compatibilizer is present in the examples of the present invention (Lotader 8900, pg. 29, line 14), but is absent in the examples of Greener as disclosed at col. 7, line 50 – col. 8, line 47. The present claims require the presence of compatibilizer. Therefore, the materials utilized in the examples of the reference are not the same as the presently claimed or exemplified materials.

The Examiner also indicates that:

"Applicant has argued that the Greener et al. reference fails to disclose the instantly claimed features including the surface roughness. Again, the Examiner points to the fact that the material of the reference appears to be prepared in the same manner (including the stretch ratio) and comprises the same materials, thus it is the position of the Examiner that the material of Greener et al. would inherently possess the surface roughness absent evidence to the contrary."

It should be noted, however, that the stretch ratio utilized in the present examples is 5X (pg. 29, lines 26-27), but is 3.3X in the examples of Greener as disclosed at col. 8, lines 12-13. As indicated above, US2002/0114977 A1 and US 6,783,889 B2 by Kubota et al teach blending polyester and polyether imide [0030 or col. 5, lines 6-13] preferably with a compatibilizer [0031 or col. 5, lines 14-20], casting a film and stretching the cast film [0122 or col. 26 lines 1 - 37] to obtain surface roughness Ra values of 6.5 to 15 nm (0.0065 to 0.015

micron) (Examples 8-11 and Comparative examples 5-7; Table 2, as well as col. 18, line 58 – col. 20, line 3) as opposed to Ra values greater than 0.3 micron as presently claimed. It should be noted that the Examples of US2002/0114977 utilize stretching ratios similar to those found in Greener to produce Ra values from 15.3 to 21.2 nm, which corresponds to 0.015 to 0.0212 microns (Comp. Example 12 stretching ratios of 3.5 (l) and 4.5 (w) [0398] vs. Ra value –Table 5). See also [0081] ("*When the film of the present invention having a laminated structure is used for a metal particles magnetic recording medium, the surface roughness Ra(b) of the surface (b surface) at the B layer side is preferably 3 to 15 nm*" (0.003 to 0.015 microns) "*, is more preferably 5 to 12 nm*" (0.005 to 0.012 microns) "*, and is most preferably 7 to 10 nm*" (0.007 to 0.010 microns) ". *When the Ra(b) is less than 3 nm, it is not preferable since the productivity is decreased due to inferior handling properties obtained in film-forming and fabrication steps, or since the sufficient magnetic tape properties are not obtained due to the degradation of the running properties and of the abrasion resistance when the film is used for a magnetic tape. When Ra (b) is more than 15 nm*" (0.015 microns) "*, and the film is used for a magnetic tape, it is not preferable since the particles on the running surface side may be easily removed so as to cause the dropouts or to cause the degradation of the running properties.*") Likewise, the Examples of US 6,783,889 utilize stretching ratios similar to those found in Greener to produce Ra values from 3 to 8 in both the longitudinal and width directions (col. 26, lines 1-28) (Comp. Example 11 stretching ratios of 3.5 (l) and 4.5 (w) (col. 56, lines 47-49) vs. Ra value of 4.8 and 15.5 nm (Table 5); see similar results for Examples 16, 19, and Comp. Example 12) See also col. 18, line 60 - col. 19, line 19 ("*When the film of the present invention having a laminated structure is used for a metal particles magnetic recording medium, the surface roughness Ra(b) of the surface (b surface) at the B layer side is preferably 3 to 15 nm*" (0.003 to 0.015 microns) "*, is more preferably 5 to 12 nm*" (0.005 to 0.012 microns) "*, and is most preferably 7 to 10 nm*" (0.007 to 0.010 microns) ". *When the Ra(b) is less than 3 nm, it is not preferable since the productivity is decreased due to inferior handling properties obtained in film-forming and fabrication steps, or since the sufficient magnetic tape properties are not obtained due to the*

degradation of the running properties and of the abrasion resistance when the film is used for a magnetic tape. When Ra (b) is more than 15 nm" (0.015 microns)*", and the film is used for a magnetic tape, it is not preferable since the particles on the running surface side may be easily removed so as to cause the dropouts or to cause the degradation of the running properties.*

When the film of the present invention having a laminated structure is used for a metal particles magnetic recording medium, the surface roughness Ra(f) of a surface (f surface) opposite to the B layer is preferably 0.5 to 10 nm" (0.0005 to 0.010 microns) "*, is more preferably 1 to 8 nm*" (0.001 to 0.008 microns) "*, and is most preferably 1.5 to 6.5 nm*" (0.0015 to 0.0065 microns) ". *When the Ra(f) is less than 0.5 nm, it is not preferable since the sufficient magnetic tape properties are not obtained due to the degradation of the running properties for a magnetic head when the film is used for a magnetic tape. When the Ra(f) is more than 10 nm*" (0.010 microns) "*, it is not preferable since the electromagnetic conversion characteristics are degraded, or the magnetic head is easily damaged when the film is used for a magnetic tape.*")

Thus, the references to Kubota et al. provide evidence that the exemplified stretching ratios of Greener would not inherently produce films of the presently claimed roughness.

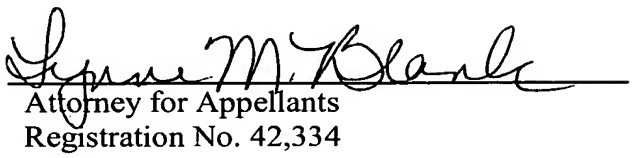
Summary

Greener fails to expressly mention the limitation of the present claims for forming a roughened sheet or forming at least one surface layer has a roughness of greater 0.3 Ra and fails to inherently disclose the limitation of the present claims. Therefore, Greener fails to anticipate the present claims.

Conclusion

For the above reasons, Appellants respectfully request that the Board of Patent Appeals and Interferences reverse the rejection by the Examiner and mandate the allowance of Claims 1-11 and 14-16.

Respectfully submitted,



Attorney for Appellants
Registration No. 42,334

Lynne M. Blank/ct
Telephone: 585-477-7418
Facsimile: 585-477-1148
Enclosures

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Appendix I - Claims on Appeal

1. A method of forming a roughened sheet comprising extruding a polymer sheet wherein at least one surface layer comprises polyether polymeric antistat, extrudable polymer, and compatibilizer stretching said polymer sheet by a ratio of at least 3:1 in at least one direction such that said at least one surface layer has a roughness of greater 0.3 Ra.

2. The method of Claim 1 wherein said surface layer has a resistivity of less than 13 log ohm/sq.

3. The method of Claim 1 wherein said polyether polymeric antistat comprises polyether block copolyamide.

4. The method of Claim 1 wherein said extrudable polymer comprises polypropylene.

5. The method of Claim 1 wherein said extrudable polymer comprises polyolefin.

6. The method of Claim 1 wherein said extrudable polymer comprises polyester.

7. The method of Claim 1 wherein said roughness is between 0.3 Ra and 2 Ra.

8. The method of Claim 1 wherein said resistivity is less than 12.5 log ohm/sq.

9. The method of Claim 1 wherein said polyether polymeric antistat comprises between 15 and 85% weight by layer, said extrudable polymer comprises between 15 and 85% by weight of said layer, and said compatibilizer comprises between 0.2 and 20% by weight of said layer.

10. The method of Claim 1 further comprising thermally processable onium salt.

11. The method of Claim 1 wherein said thermally processable onium salt comprises between 0.1 and 10% by weight of the amount of said polyether polymeric antistat.

14. The method of Claim 1 wherein said compatibilizer comprises at least one member selected from the group consisting of polyethylene, polypropylene, ethylene/propylene copolymers, ethylene/butene copolymers, polyethylene, polypropylene, ethylene/propylene copolymers, ethylene/butene copolymers grafted with maleic anhydride or glycidyl methacrylate, ethylene/alkyl (meth)acrylate/maleic anhydride copolymers wherein the maleic anhydride is grafted or copolymerized, ethylene/vinyl acetate/maleic anhydride copolymers wherein the maleic anhydride is grafted or copolymerized, ethylene/alkyl (meth)acrylate/maleic anhydride copolymers and ethylene/vinyl acetate/maleic

anhydride copolymers wherein anhydride is replaced fully or partly by glycidyl methacrylate, ethylene/(meth)acrylic acid copolymers and their salts, ethylene/alkyl (meth)acrylate/glycidyl methacrylate copolymers wherein the glycidyl methacrylate is grafted or copolymerized, and grafted copolymers constituted by at least one mono-amino oligomer of polyamide and of an alpha-mono-olefin (co)polymer grafted with a monomer able to react with the amino functions of said oligomer.

15. The method of Claim 1 wherein said compatibilizer comprises at least one member selected from the group consisting of polyethylene, polypropylene, ethylene/propylene copolymers, ethylene/butene copolymers, polyethylene, polypropylene, ethylene/propylene copolymers, ethylene/butene copolymers grafted with maleic anhydride or glycidyl methacrylate, ethylene/alkyl (meth)acrylate/maleic anhydride copolymers, ethylene/vinyl acetate/maleic anhydride copolymers, ethylene/alkyl (meth)acrylate/glycidyl methacrylate copolymers, and ethylene/ glycidyl methacrylate.

16. The method of Claim 1 wherein said compatibilizer comprises terpolymers of ethylene/methyl acrylate/glycidyl methacrylate or copolymers of ethylene/ glycidyl methacrylate.

Appendix II - Evidence

None

Appendix III – Related Proceedings

None